

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-028794**Date Inspected:** 27-Nov-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

<b>CWI Name:</b>	Bernie Docena and Barry Drake			<b>CWI Present:</b>	<b>Yes</b>	<b>No</b>	
<b>Inspected CWI report:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Rod Oven in Use:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Electrode to specification:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Weld Procedures Followed:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Qualified Welders:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Verified Joint Fit-up:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Approved Drawings:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Approved WPS:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
				<b>Delayed / Cancelled:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Bridge No:</b>	34-0006			<b>Component:</b>	SAS OBG		

**Summary of Items Observed:**

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At OBG 13E-E2.4-@2600mm drop-in top deck plate outside, QA randomly observed ABF/JV welder Eric Sparks perform CJP groove welding repair on a Seismic Performance Critical Member (SPCM) due to Ultrasonic Testing (UT) detected defect on welded butt joint. The welder preheated the repair area and its vicinity to >225°F using propylene gas torch prior excavation and then ground smooth the groove of the excavation. The welder was noted using propylene gas torch to preheat the repair area and its vicinity to 325°F and as soon as the required temperature was attained the welder started performing the welding repair. This repair listed below does not need Request for Weld Repair (RWR) due to first time repair only. Welder Erick Sparks was observed manually welding in 1G (flat) position utilizing Shielded Metal Arc Welding (SMAW) with 3.2mm diameter E7018H4R electrode implementing Caltrans welding procedure ABF-WPS-D15-1004 Repair. During welding, ABF QC Salvador Merino was noted monitoring the welder's welding parameter with measured working current of 128 amperes on the 3.2mm diameter E7018H4R electrodes. During the shift, repair welding at the location mentioned below was completed and one of the ABF personnel has performed the Post Weld Heat Treatment (PWHT) at 450°F using the propylene gas torch and held it for one hour as required.

Y-location	Length	Width	Depth	RWR#	Remarks
1. 1580mm	75mm	20mm	12mm	N/A	R1- completed.

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# WELDING INSPECTION REPORT

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At the request of Quality Control Field Supervisor, Bonifacio Daquinag, QA has randomly verified the QC VT/MT on drop-in floor beam flange weld joints. The QA verification was performed to verify that the welding and the VT/MT inspection performed by the QC inspector meet the requirements of the contract documents. At the conclusion of the QA verification it appeared that the welds and the QC inspection complied with the contract documents.

1. 13W-PP123-W2.8 BF3 – flange to flange skewed T-joint connection weld cover QA verified.
2. 13W-PP122-W2.5 BF1 – flange to flange butt joint connection weld cover QA verified.

FW Spencer:

The QAI observe the ongoing installation, field fit-up and tack welding of the utility pipe support lug 5” long x 1” wide x 3/8” thick along the E5 grid line (panel point PP101). The lug pipe support was fillet welded on both sides of the 2 1/2” diameter domestic water line and 4” diameter compressed air line. The QC inspection was performed by Steve Jensen utilizing the Welding Procedure Specification (WPS) identified as Fillet Murex to monitor the tack welding and fillet welding to verify the welding parameters. The welding parameters were observed and recorded as 90 amps utilizing 2.4 mm electrodes with the welding performed in the 2F/4F positions. The tack welding/fillet welding was performed and completed by FW Spencer welder Damian Llanos. At the end of the shift, two (2) support lugs welded on each line were completed.



### Summary of Conversations:

No significant conversation occurred today.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Gary Thomas (916) 764-6027, who represents the Office of Structural Materials for your project.

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**Inspected By:** Lizardo, Joselito

Quality Assurance Inspector

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**Reviewed By:** Reyes, Danny

QA Reviewer